

**Subject card**

<b>Subject name and code</b>	Application of Computers in Marine Geology - laboratory, PG_00205002						
<b>Field of study</b>	Oceanography						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2026/2027		
<b>Education level</b>	Master's studies	<b>Subject group</b>			Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	1	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	1	<b>ECTS credits</b>			5.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			credit		
<b>Conducting unit</b>	Department of Geophysics -> Faculty of Oceanography and Geography -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Dominik Pałgan				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	0.0	0.0	45.0	0.0	0.0	45
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	45		5.0		75.0	125
<b>Subject objectives</b>	To familiarise the student with the computer software used in marine geology and to use it skilfully						
<b>Learning outcomes</b>	<b>Course outcome</b>		<b>Subject outcome</b>		<b>Method of verification</b>		
	[OCEANMU2-U06] is able to use specialized computer software as well as advanced mathematical and statistical methods to analyze data and describe processes and phenomena occurring in the marine and coastal environment; evaluates their reliability and usefulness and performs critical analysis		is able to use specialised and off-the-shelf computer software and mathematical and statistical methods in the analysis of data and the description of phenomena and processes occurring on the seabed and the coastal zone (B.1-B.4)		[SU3] text preparation/written work [SU5] implementation of a problem task		
	[OCEANMU2-W05] knows and understands the principles of planning and conducting field and laboratory research as well as advanced methods and tools of scientific research, especially in the field of the studied specialty		has an in-depth knowledge and understanding of the techniques, research methods and computer programmes (mathematical, statistical, IT) used in planning and re-launching the investigations carried out by a marine geologist (B.1-B.4)		[SW3] text preparation/written work [SW5] implementation of a problem task		

Subject contents	<p>B1. Use of available oceanographic software to analyse and synthesise geological phenomena directly relevant to the bathymetry of the study area</p> <p>B2. Use of available geological databases for scientific studies</p> <p>B3. Production of original graphic elements in scientific studies</p> <p>B4. Selection of appropriate software for scientific studies</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Completion of assignments	51.0%	100.0%
Recommended reading	Basic literature	<p>Urbański J (2012) GIS w badaniach przyrodniczych. University of Gdańsk, Gdańsk</p> <p>M. Klischies et al., (2019), Geological mapping of the Menez Gwen segment at 37°50N on the Mid-Atlantic Ridge: Implications for accretion mechanisms and associated hydrothermal activity at slow-spreading mid-ocean ridges, <i>Mar. Geol.</i></p>	
	Supplementary literature	<p><a href="https://www.geomapapp.org">https://www.geomapapp.org</a></p> <p><b>Ryan, W. B. F., S.M. Carbotte, J. Coplan, S. O'Hara, A. Melkonian, R. Arko, R.A. Weissel, V. Ferrini, A. Goodwillie, F. Nitsche, J. Bonczkowski, and R. Zensky (2009), Global Multi-Resolution Topography (GMRT) synthesis data set, <i>Geochem. Geophys. Geosyst.</i>, 10, Q03014, doi:<a href="https://doi.org/10.1029/2008GC002332">10.1029/2008GC002332</a></b></p>	
	eResources addresses		
Example issues/ example questions/ tasks being completed	<p>The use of GIS in marine geology. The use of graphics software in marine geology. Software for managing literature in text.</p>		
Work placement	Not applicable		

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